

Work Order ID 86212

86212

Page 1

June-22-12 3:06:04 PM

Item ID: D3011-1

Accept

N900040100

Setup Start *NS1*

Revision ID:

Stop *NS2*

Item Name: Rappel

Start Date: 22/06/2012 Start Qty: 6.00

6

Cust Item ID:

Required Date: 06/07/2012 Req'd Qty: 6.00

6

Customer:

Reference:

Approvals: Process Plan: PLJ

Date: 12/06/22

Tooling:

Date:

Run Start *NR1*

QC:

Date:

SPC (Y/N):

Date:

Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

Draw Nbr

Revision Nbr

D3011

Rev B

100

0.00

100

BAND SAW

Bandsaw

Memo

0.00

Jeaspa Bandsaw

Cut Blanks: 26.625"

110

0.00

110

HAAS CNC VERTICAL MACHINING #1

HAAS 1

Memo

0.00

HAAS CNC vertical machine #1

Machine as per folio FA129

Folio Rev: AA

Dwg Rev: B

SL 12-07-23

5 1

ET 12-07-27

P10 →

W/O: 86212		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: D3011-1 PAR #: _____ Fault Category: Machining NCR: Yes No DQA: Star Date: 12/08/13
 Resolution: _____ Disposition: Scrap QA: N/C Closed: NO Date: 12/08/14

NCR: 12-1675		WORK ORDER NON-CONFORMANCE (NCR) 283.53						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			
110	12-07-27	part moved in vise causing 1/2 ball mill to go too deep in foot of rapped .024" .042" too deep RC Tooling	DAS 22 12/07/27	Scrap no replace	BT 12-07-27	DAS 14 12/07/27	DAS 22 12/07/27	DAS 16 12/07/27
# 110	12/07/27	on dy x 5 part - see hdy. are yd ante by v. 007 to 0.013" ASI ab allows yd 0.007" also in spot for puz directi	MP 12/8/27	Acctall per attache Email.	MP 12/8/27	DAS 16 12/08/02	B.A 12/08/02	DAS 16 12/08/30
		o 0.012 Deep Drawn calls for 0.010 Deep. Re opening error origin not creat.	MP 12/8/27		MP 12/8/27	DAS 16 12/08/02	B.A 12/08/02	DAS 16 12/08/30

NOTE: Date & initial all entries

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Required Date: 06/07/2012 Req'd Qty: 6.00

6

Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Run Start ***NR1***

Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

120 QC2- Inspect parts off machine FAI/FAIB

0.00

120

QC Memo

0.00

Quality Control

12-07-27 *(x6)*
5 1

130 QC8- Inspect parts - second check

0.00

130

QC Memo

0.00

Quality Control

La 12/08/02

5 0

131 0.00

131

Outsource2 Memo

0.00

Outsource process - NDT

1- LPI AS PER ASTM 1417 LEVEL 2 AS PER DWG d3011
2- Certificate of conformity is required

12/13 *(5)*

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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Required Date: 06/07/2012 Req'd Qty: 6.00

6

Customer:


Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start ***NR1***

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
132 *132* QC Quality Control	QC5- Inspect part completeness to step on W/O Memo	0.00 0.00		260606					
140 *140* HandFinish Hand Finishing	Chemical Conversion Coat per QSI005 4.1 Memo	0.00 0.00							5 16 12-8.8
150 *150* Powdercoat Powder Coating	White Gloss(Ref:4.3.5.1) per QSI005 4.3-Alum Memo START TIME: 8h55 OVEN TEMPERATURE: 320°F FINISH TIME: 9h25	0.00 0.00							5 (DP) 12/08/09 m 121 481 ✓

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
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NOTE: Date & initial all entries

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Required Date: 06/07/2012 Req'd Qty: 6.00

6

Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start ***NR1***

QC:

Date:

SPC (Y/N):

Date:

Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
160	QC3- Inspect Part Finish	0.00							
160									
QC	Memo	0.00							
Quality Control									
170	Identify as per dwg & Stock Location: 5199	0.00							
170									
Packaging	Memo	0.00							
Packaging									
180	QC21- Final Inspection - Work Order Release	0.00							
180									
QC	Memo	0.00							
Quality Control									

5x d M 12/08/09

5x 82 12-29

11/20/09 12/8/10 JD

B/12-05-3

181

Issue PO for POM609
LPI

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____
 Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

June-22-12 3:06:07 PM

Page 1

Work Order ID: 86212

86212

Parent Item: D3011-1

D3011-1

Parent Item Name: Rappel

Start Date: 22/06/2012

Required Date: 06/07/2012

Start Qty: 6.00

Required Qty: 6.00

Comments: IPP C02.05.09Added D6202 at step 2NG
IPP Rev:D Added QC8 JLM Verified By:EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
D6202		Manufactured	No			110	f	50.6880	1	6			

D6202

I-Beam Extrusion

**

SL 12-07-23

Location

Loc Qty

Loc Code

MAT028

50.688

77710

14

80109

36.688

13.33

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
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NOTE: Date & initial all entries

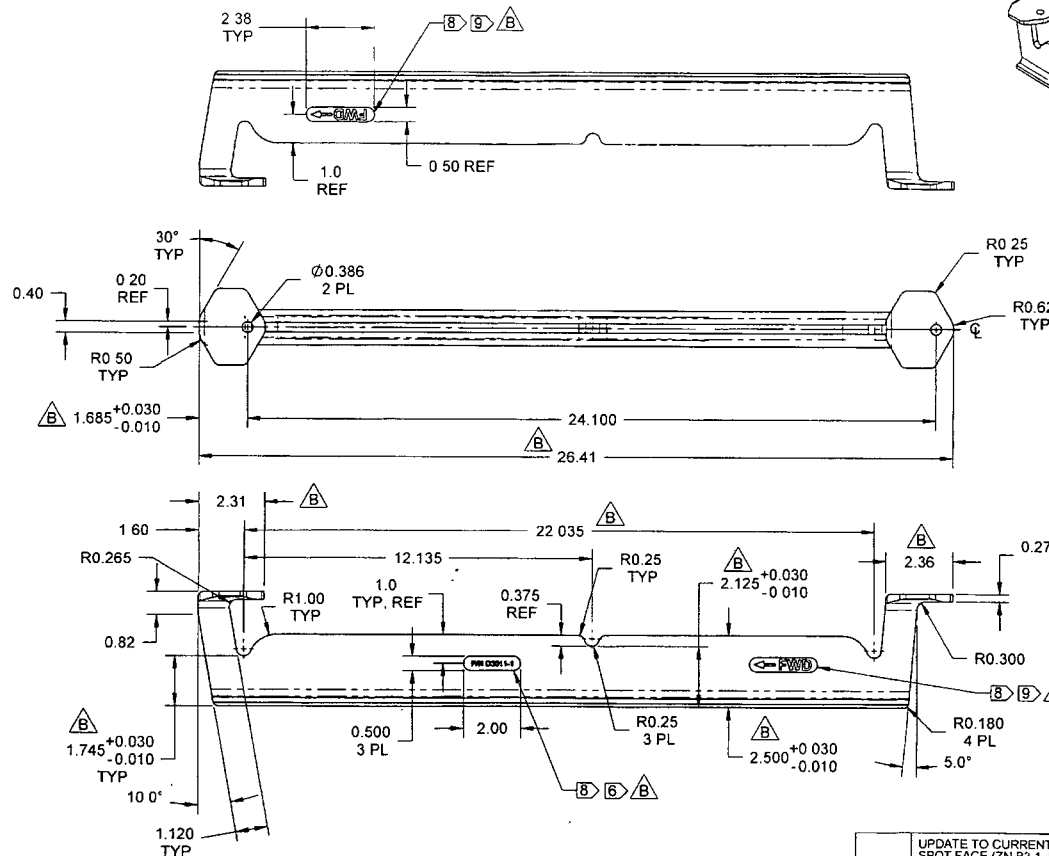
W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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NOTE: Date & initial all entries



SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 80212 MLJ
12/06/22

RELEASED
09/07/24

NOTES:

- 1) MATERIAL: MANUFACTURE FROM D6202-027 EXTRUSION
- 2) FINISH: ACID ETCH AND ALODINE PER DART QSI 005 4.1
POWDER COAT "WHITE" (4.3.5.1) PER DART QSI 005 4.3
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: ENGRAVE P/N IN THIS AREA AS SHOWN (NEAR SIDE ONLY) TO MAX
DEPTH OF 0.015 IN 0.19 HIGH LETTERS WITH A MIN RADIUS TOOL OF 0.015
- 7) WEIGHT: 3.00 lbs
- 8) SPOT FACE MAX DEPTH OF 0.010 PRIOR TO MARKING
- 9) ENGRAVE "FWD" IN THIS AREA AS SHOWN TO MAX DEPTH OF 0.015 IN
0.38 HIGH LETTERS WITH MIN TOOL RADIUS OF 0.015
- 10) LPI PER ASTM 1417 LEVEL 2

D3011-1 RAPPEL SLIDE BAR

B	UPDATE TO CURRENT STANDARDS; ADD NOTE 8; ADD SPOT FACE (ZN B2-1, B4-1 & D5-1); ADD DIMENSIONS (ZN B3-1, B4-1 & C5-1); 26.41 WAS 26.52 (ZN C4-1); 2.70 WAS 2.700 (ZN B7-1); ADD (+0.030/-0.010) TOLERANCES, ADD LPI (ZN A8-1)	RF	09.07.24
A	NEW ISSUE	CP	01.03.29
REV	DESCRIPTION	BY	DATE
DESIGN	DS		
DRAWN	RF		
CHECKED			
MFG. APPR			
APPROVED			
DE APPR			
DATE	09.07.24		

DART AEROSPACE LTD
HAWKESBURY, ONTARIO, CANADA

DRAWING NO. **D3011** REV. B
SHEET 1 OF 1
TITLE **RAPPEL SLIDE BAR** SCALE NTS

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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Mike Petsche

From: Jean-Luc Menard <jmenard@dartaero.com>
Sent: Thursday, August 02, 2012 10:55 AM
To: Mike Petsche
Subject: FW: D3011-1

From: David Shepherd [mailto:dshepherd@dartaero.com]
Sent: Monday, July 30, 2012 7:15 PM
To: jmenard@dartaero.com; 'Isam El-Kassis'; 'Linda Lacelle'; 'Eric Downing'
Subject: RE: D3011-1

In my opinion, the deviations to the D3011-1 rappel bars described below are acceptable as long as the dimension between the holes (24.100 +or- 0.010) is within tolerance. I like Pat suggestion for the engraving, but only if it will be readable after the part is painted. Otherwise, OK to go to 0.015 deep per dwg. And definitely agree with Isam that we should have caught this on the first part before we made the next 4.

David

From: jmenard@dartaero.com [mailto:jmenard@dartaero.com]
Sent: July-30-12 2:36 PM
To: Isam El-Kassis; David Shepherd; Linda Lacelle; 'Eric Downing'
Subject: Re: D3011-1

Will look into it tom morning.

Jl

Sent from my BlackBerry device on the Rogers Wireless Network

From: "Isam El-Kassis" <ielkassis@dartaero.com>
Date: Mon, 30 Jul 2012 16:17:38 -0400
To: 'David Shepherd' <dshepherd@dartaero.com>; 'Linda Lacelle' <llacelle@dartaero.com>; 'Jean-Luc Menard' <jmenard@dartaero.com>; 'Eric Downing' <edowning@dartaero.com>
Subject: RE: D3011-1

Hi Jean-Luc,

Do we not have FAI on the machines or just make and send to inspection!!, where there any inspection on the machine at all for the parts, could you please clarify this for me, as I'm confused,

Isam

From: Patrick Smith [mailto:psmith@dartaero.com]
Sent: Monday, July 30, 2012 4:11 PM
To: 'Mike Petsche'; 'David Shepherd'; 'Isam el Kassis'; 'Linda Lacelle'; 'Jean-Luc Menard'; 'Eric Downing'
Subject: RE: D3011-1

Hi Mike,

If the 0.017" prior to the lettering, maybe he can go not as deep for the lettering? As for a total depth he has .025".

Pat

From: Mike Petsche [<mailto:mpetsche@dartaero.com>]

Sent: July-30-12 3:57 PM

To: 'David Shepherd'; psmith@dartaero.com; Isam el Kassis; 'Linda Lacelle'; 'Jean-Luc Menard'; 'Eric Downing'

Subject: D3011-1

David

Earlier I mentioned that Guillaume came to me with some non-conforming Rappel Slide Bars

The mounting hole locations are off by 0.007" to 0.013". QSI allows 0.005". Also, the spot face for the engraving is too deep. It should be 0.010" but in fact it's 0.017".

We are talking about 5 parts.

Legend has it we have accepted worse in the past. But of course, I'm leery.

Mike Petsche

Design Manager

DART Aerospace

Phone: 613-632-5200

Mobile: 514-833-1657



RAPPORT D'INSPECTION NON DESTRUCTIVE

(SUITE)

RAPPORT# P-123054

PAGE 2 DE 2

CLIENT Dart Aerospace DATE August 3, 2012 HEURE ☒ AM ☐ PM
ATTENTION Linda ACUREN W/O: 188-12-60305 7:30

RÉSULTATS

(☐ MÉTRIQUE ☐ IMPÉRIALE)

- 1) 3X D412-664-203 Crosstube AFT WO ID: B87295-B86985-B86986
PT Done IAW ASTM E1417-05 Found accepted
- 2) 1X D212-664-201 Crosstube AFT WO ID: B85563
PT Done IAW ASTM E1417-05 Found accepted
- 3) 2X D206-667-103 Crosstube FWD WO ID: B88697-B88696
PT Done IAW ASTM E1417-05 and Found accepted
- 4) 2X D407-667-105 Crosstube FWD WO ID: B85313-B85314
PT Done IAW ASTM E1417-05 and Found accepted
- 5) 5X D3011-1 Rappel WO ID: 86212
PT Done IAW ASTM E1417-05 and Found accepted

(DAS)
16
0-0
p15/16

15
0-0
p15/16

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SIGNATURES

REPRÉSENTANT CLIENT	<u>Andy Sheldon</u>	FTJ#:
TECHNICIEN (SIGNATURE):	<u>Philippe Barre</u>	RAPPORT
NOM (MOULIÉ):	<u>Philippe Barre</u>	RÉVISÉ PAR:
	1 ^{er} TECHNICIEN	NOM
	2 nd TECHNICIEN	INITIALES
ONGC NIVEAU <u>2</u> SNT NIVEAU <u>2</u>	ONGC NIVEAU <u>2</u> SNT NIVEAU <u>2</u>	
ONGC N° REGISTRATION <u>12027</u>	ONGC N° REGISTRATION <u>12027</u>	